In the Claims

1. (Currently Amended) An imaging system comprising:

~~an MR~~a magnetic resonance (MR) imaging apparatus to acquire MR data of a subject; ~~and~~

an x-ray imaging apparatus having a rotatable anode integrally disposed in the MR imaging apparatus to acquire radiographic data of the subject; and

a motor assembly configured to rotate the anode in a magnetic field generated in a magnet bore of the MR imaging apparatus during data acquisition, wherein the motor assembly includes a radial flux motor and a biasing spring operationally connected to the anode such that rotation of the anode by the radial flux motor biases the spring in a stored energy condition and wherein the spring is further configured to rotate the anode when the bias placed on the spring is removed such that the motor assembly does not induce flux in the magnetic field during data acquisition.

2. (Canceled)

3. (Original) The imaging system of claim 2 wherein the motor assembly includes a non-magnetic flux motor.

4. (Original) The imaging system of claim 3 wherein the non-magnetic flux motor includes a piezoceramic motor.

5. (Original) The imaging system of claim 2 wherein the motor assembly includes a radial flux motor designed to rotate the anode at a specified frequency before MR data acquisition.

6. (Original) The imaging system of claim 5 wherein the anode is configured to rotate in the magnet bore from the specified frequency to a slower frequency without a force applied thereon by the radial flux motor during MR data acquisition.

7. (Canceled)

8. (Canceled)

9. (Original) The imaging system of claim 1 wherein the MR imaging apparatus includes a split-coil MR magnet.

10. (Currently Amended) An MR apparatus comprising:

a magnetic resonance imaging (MRI) system having an x-ray tube assembly to generate an x-ray beam for radiographic data acquisition, and further having a plurality of gradient coils positioned about a bore of a magnet to impress a polarizing magnetic field and an RF transceiver system and an RF switch controlled by a pulse module to transmit RF signals to an RF coil assembly to acquire MR ~~images~~data; and

a motor assembly configured to control rotation of a rotatable anode of the x-ray tube assembly disposed in the bore of the magnet, wherein the motor assembly includes a radial flux motor configured to rotate the rotatable anode prior to a pre-data acquisition rotational speed and disengage from the rotatable anode during a simultaneous acquisition of radiographic and MR data such that the rotatable anode rotates during the simultaneous acquisition of radiographic and MR data as a result of momentum generated in the rotatable anode before the simultaneous acquisition of radiographic and MR data.

11. (Original) The MR apparatus of claim 10 wherein the motor assembly includes a piezoceramic drive motor.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently Amended) A method of diagnostic imaging comprising the steps of:

impressing a substantially homogeneous magnetic field about a subject;

projecting high frequency electromagnetic energy at the subject;

rotating an anode of a high frequency electromagnetic energy tube assembly in the magnetic field during the projecting; ~~and~~

acquiring MR and radiographic data from the subject; and

wherein the step of rotating includes the step of counter-rotating the anode prior to data acquisition to store energy in a spring connected to the anode and thereafter removing a bias placed on the anode to allow the spring to release the stored energy during data acquisition.

17. (Canceled)

18. (Currently Amended) The method of claim ~~17~~ 16 ~~wherein the pre-data acquisition rotational speed includes~~further comprising the step of causing the anode to rotate at approximately 200 Hz after the bias is removed.

19. (Canceled)

20. (Currently Amended) The method of claim ~~19~~ 16 including the step of counter-rotating the anode with a radial flux motor.

21. (Canceled)

22. (New) A magnetic resonance imaging (MRI) system having a plurality of gradient coils positioned about a bore of a magnet to impress a polarizing magnetic field and an RF transceiver system and an RF switch controlled by a pulse module to transmit RF signals to an RF coil assembly to acquire MR images;

a motor assembly configured to control rotation of a rotatable anode disposed in the bore of the magnet, wherein the motor assembly further includes an energy storage device operationally connected to the anode and wherein the motor assembly is further configured to counter-rotate the anode so as to store energy in the energy storage device.

23. (New) The MRI system of claim 22 wherein the energy storage device includes a spring.